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ABSTRACT OF THE DISCLOSURE

A circuit includes a decoder for receiving an address within an address space of a processor and for accessing a pixel in an active pixel sensor array based on the address. The decoder maps the active pixel sensor array to the address space. The circuit can also provide sequencing of these addresses such that a group of pixels can be read out without additional addressing from a processor. There is also provided a method of processing pixel imperfections in real time. Pixel integration can be programmed on any single pixel or group of pixels in the array as well as windowed readout. A method of target discrimination is also disclosed.